

Massachusetts Department of of Public Health ELR Pilot

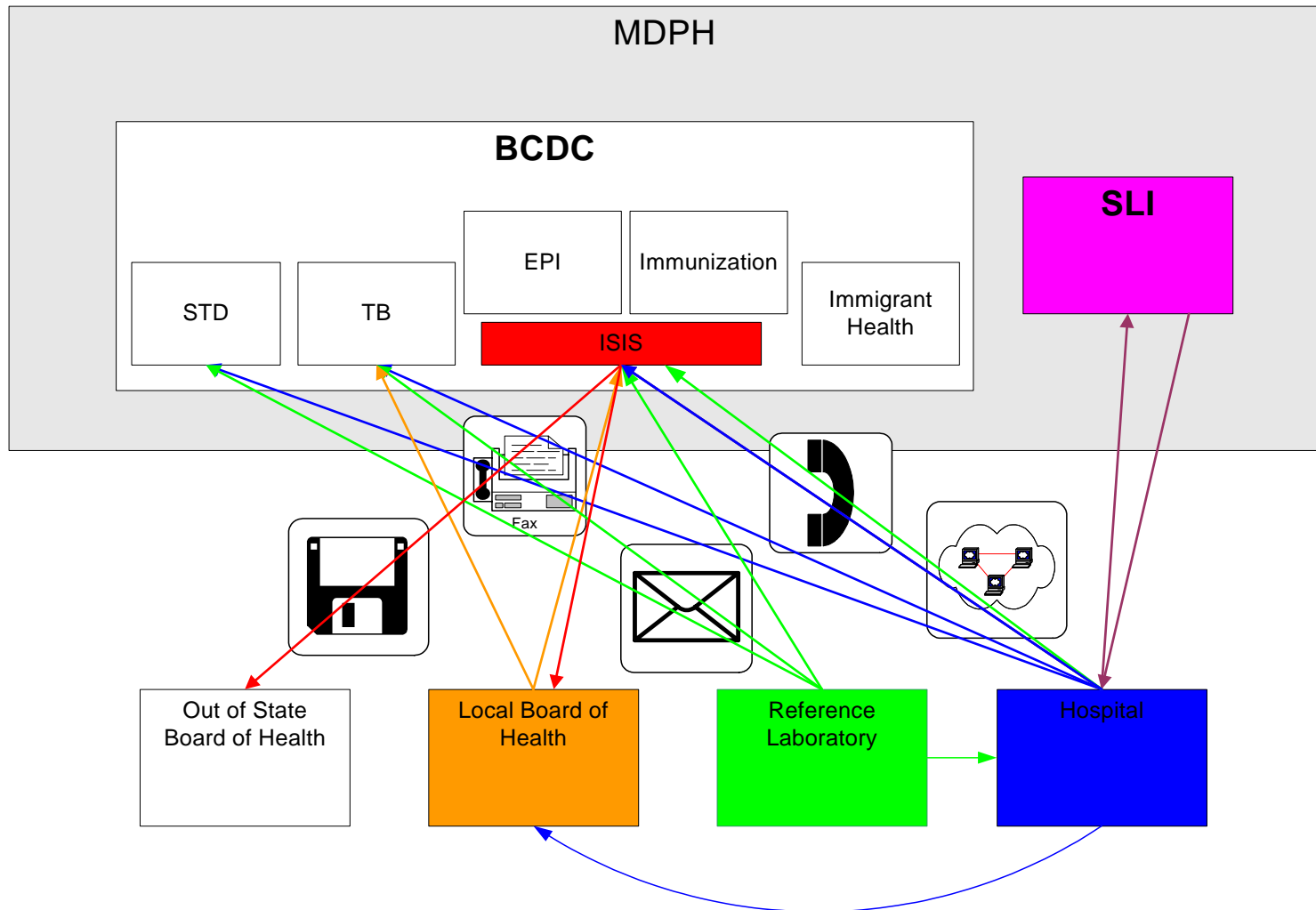
James B. Daniel, Gillian Haney, Rosa Ergas
Office of Integrated Surveillance and Informatics
Bureau of Communicable Disease Control

May 10, 2004

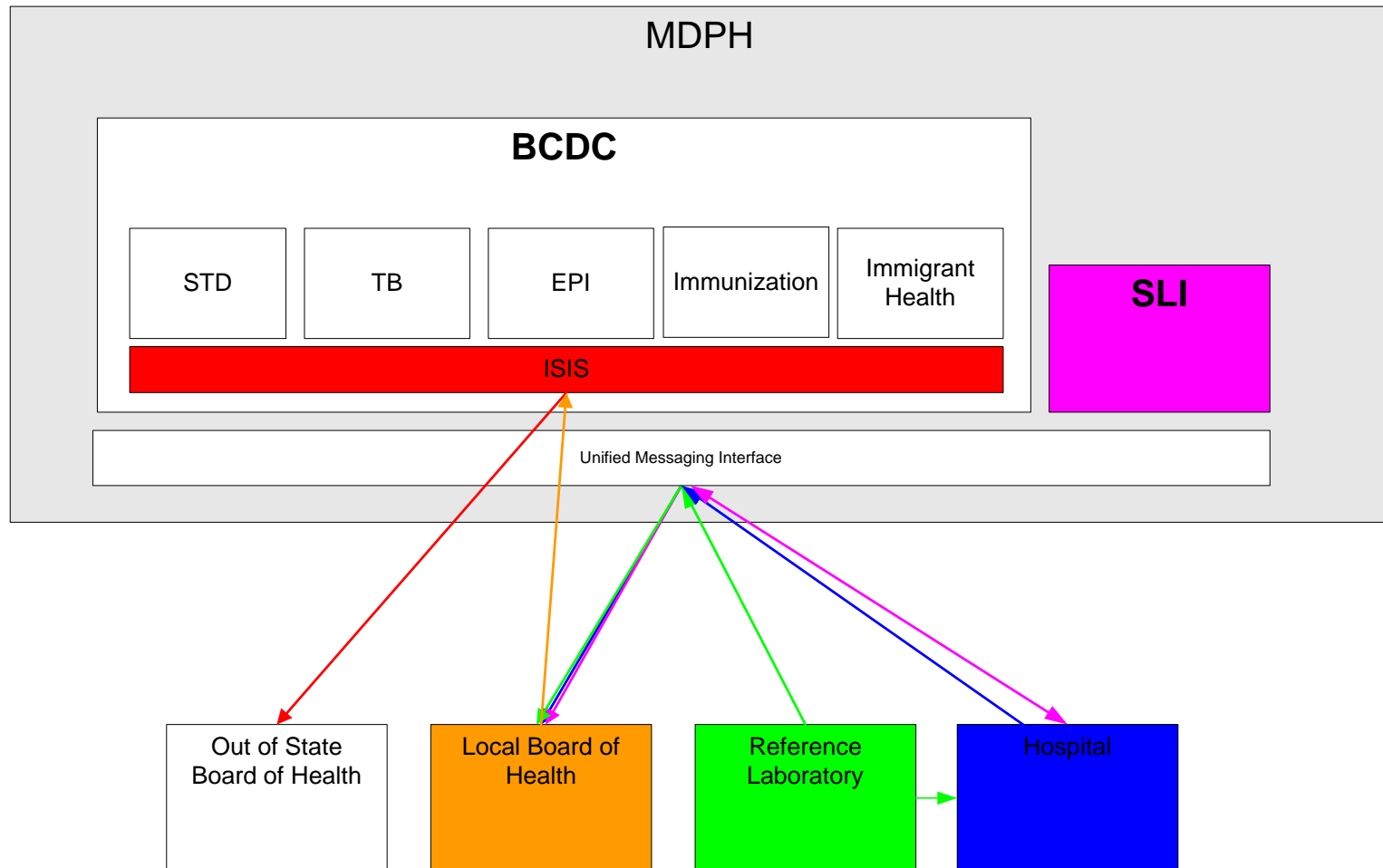
Agenda

- Data Flows
- Challenges
- Opportunity
- ELR Pilot Goals and Activities
- Demo
- Progress/Next Steps

Current Data Flow



ELR Desired Data Flow



Challenges with Current “Electronic Reporting”

- Variety of Methods
 - VPN by MDPH into hospital lab systems
 - VPN by hospitals in MDPH systems
 - sFTP
 - Disks via USPS (mainly for supplemental data such as antibiotic sensitivities)

Challenges with Current “Electronic Reporting”

- Lack of Standards
 - No standard format
 - Relational tables for sensitivity results
 - Multiple lines in single table
 - .txt; .xls; .csv; .mdb
 - Requires pre-review “data-messaging”
 - Local Codes
 - Requires manual review

Opportunity

- Bureau of Laboratory Sciences legislated to charge for TB Confirmatory Tests performed on behalf of hospitals.
- Hospital buy-in required:
 - Web-based requisitions integrating with hospital LIS (including automated process for submission)
 - Electronic results utilizing both a web-interface and HL7 Messages
- Developed application for requisitions and reporting of lab results to hospitals

Opportunity

- Build upon existing lab infrastructure
- Bi-Directional
- Utilize a single interface
- Add functionality allowing hospitals not only to receive reports from Bureau of Laboratory Sciences, but also to send their reportable results to the Bureau of Communicable Disease Control

ELR Goals

- Present a single point of contact for all communicable disease reporting
- Provide hospitals with tools to transmit reports to MDPH.
- Support messaging using HL7 format.
- Improve timeliness of reporting of notifiable conditions.
- Improve data quality.
- Automate disease reporting process.
- Facilitate access to data by authorized individuals.
- Provide data to decision makers in the formats they need.
- Enable Local Boards of Health to access ELR data from their communities.
- Provide a system with the flexibility to meet future needs.

Pilot Goals

- Develop standards for messaging of electronic information from hospitals.
- Evaluate cost effectiveness of various methods for electronic message generation.
- Develop best practices for collaborating with hospitals to extract and map data to MDPH messaging standards.
- Collect data from hospitals on a daily basis over a period of three months.
- Collect daily batches of laboratory and clinical data regarding the following reportable conditions: Hepatitis A, Streptococcus Pneumoniae, Salmonella, MRSA, Giardia, Group A Streptococcus, Latent Tuberculosis Infection, Gonorrhea.

ELR Pilot Technical Infrastructure

- A secure method for transmission of data from Hospitals to BCDC.
- Support messaging using standard formats: HL7 or MDPH Simplified Messaging Format.
- Provide hospitals with tools to map their internal coding systems to MDPH mandated LOINC, SNOMED and HL7 vocabularies.
- Identification of data errors and notification of appropriate people.

Hospital ELR Pilot Activities

- Develop message extraction software:
 - Extract data from HIS/LIS systems
 - Assemble batch file for upload to MDPH
 - HL7 2.3.1 Format
 - MDPH Simplified Flat File Message Format

BHS|State Laboratory Institute|22D0650270|20050323|2005032322D0650270
PID|MED01|FAC001|MED02|FAC002|001-12-3456|Doe|John|Q|JR|19700101000000|1|7|234 First
Street|Apartment 1|Boston|MA|02111|USA|617|5551234|567|English|1|20050101000000|Y|Epidemiologist|0
NK1|Doe|Jane|ORC|FacilityName|234 First Street|Suite 1|Boston|MA|02111|USA|617|5551234|567|123
Second Street|3rd Floor|Boston|MA|02111|USA
OBR|ORD1234|ACC1234|2|20041127000000|20041127000000|1|20041201000000|Y|Antibiotics|A|200411290000
OBX|2|POS|S|0|20041130000000|FAC001

The MDPH Simplified Message Format (SMF):

- Statewide, versioned standard
- Pipe delimited
- Provides a simple alternative to an HL7 message for non-HL7 compliant reporting laboratories
- Employs HL7 2.3.1 ORU RO1 message segments and elements
- Allows for some measure of the flexibility of an HL7 message
- All PHIN required elements are required in the SMF
- Additional data of interest to MDPH are captured in requested elements
- Pilot file and coding guidelines are adapted from the PHIN standards for electronic laboratory reporting
- Incoming SMF contains local codes that are mapped into LOINC and SNOMED coded values
- SMF is parsed into an HL7 2.3.1 ORU RO1 message

ELR Pilot Activities

- Map local coding systems to standard coding systems:
 - LOINC
 - SNOMED
 - HL7 vocabulary codes
- MDPH will define code system subsets.
- MDPH will provide a tool for mapping and data transmission.



Welcome to the Provider Portal...

Your link to better patient care.



To Login, please enter your username and password. Passwords are case-sensitive.

Note: For privacy, your password will show on the screen as ••••••••.

Access to this system is restricted by law to authorized personnel only.

Username

Password

Secure Login

[Browser Requirements](#)

[Forgot Password](#)

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Mapping



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Condition List

Infections with the following eight conditions have been selected from among the approximately 80+ communicable diseases reportable to the Massachusetts Department of Public Health, Bureau of Communicable Disease Control for inclusion in the Massachusetts Department of Public Health Electronic Laboratory Reporting Pilot Project.

Name	Description	Clinical Description
Giardiasis	Giardia lamblia	An illness caused by the protozoan Giardia lamblia; characterized by diarrhea, abdominal cramps, bloating, weight loss, or malabsorption. Infected persons may be asymptomatic.
Gonorrhea	Neisseria gonorrhoeae	A sexually transmitted infection commonly manifested by urethritis, cervicitis, or salpingitis. Infection may be asymptomatic.
Group A Streptococcus	Streptococcus pyogenes	Invasive group A streptococcal infections may manifest as any of several clinical syndromes, including pneumonia, bacteremia in association with cutaneous infection (e.g., cellulitis, erysipelas, or infection of a surgical or nonsurgical wound), deep soft-tissue infection (e.g., myositis or necrotizing fasciitis), meningitis, peritonitis, osteomyelitis, septic arthritis, postpartum sepsis (i.e., puerperal fever), neonatal sepsis, and nonfocal bacteremia.
Hepatitis A	Hepatitis A Virus	An acute illness with a) discrete onset of symptoms and b) jaundice or elevated serum aminotransferase levels.
LTBI	Latent Tuberculosis Infection	A chronic bacterial infection caused by Mycobacterium tuberculosis, characterized pathologically by the formation of granulomas. The most common site of infection is the lung, but other organs may be involved.
MRSA	Methicillin Resistant Staphylococcus aureus	Invasion and multiplication of MRSA in a body site.
Miscellaneous	Tests not related to Organism	Clinical Description
Salmonellosis	Salmonella enterica	An illness of variable severity commonly manifested by diarrhea, abdominal pain, nausea, and sometimes vomiting. Asymptomatic infections may occur, and the organism may cause extraintestinal infections.
Streptococcus Pneumoniae	Streptococcus Pneumoniae	Streptococcus pneumoniae causes many clinical syndromes, depending on the site of infection (e.g., acute otitis media, pneumonia, bacteremia, or meningitis).



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Condition : Hepatitis A

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Condition Details

Detailed information related to the selected condition. Click on the **LOINC** or **SNOMED** to view and edit your mappings.

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Name: Hepatitis A

Description: Hepatitis A Virus

Clinical Description: An acute illness with a) discrete onset of symptoms and b) jaundice or elevated serum aminotransferase levels.

What to Report: Report a case that meets the following criteria:

- Immunoglobulin M (IgM) antibody to hepatitis A virus (anti-HAV) positive.

Centers for Disease Control and Prevention. Case definitions for infectious conditions under public health surveillance. MMWR 1997;46(No. RR-10).

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Condition : Hepatitis A

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Condition LOINC List

List of **Logical Observation Identifiers Names and Codes (LOINC)** for laboratory tests relevant to this condition. Tests are limited to those of interest to the MDPH Bureau of Communicable Disease Control. Multiple local codes may be mapped to a single selected LOINC code where local codes are more specific than those of interest to MDPH Bureau of Communicable Disease Control. In this case, click the **add** button to insert additional entry or entries for each LOINC code as needed. All codes relevant to this condition that will be reported in OBX 3.4 must be represented here. Sensitivity tests relevant to all conditions are mapped using the entries under the **Sensitivity** tab.

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LOINC Code	LOINC Description	Local Code	Local Description	New Entry
13950-1	Hep A IgM Ser Ql EIA	<input type="text"/>	<input type="text"/>	Add
22314-9	Hep A IgM Ser Ql	<input type="text"/>	<input type="text"/>	Add

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Condition : Hepatitis A

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LOINC Code	LOINC Description	Local Code	Local Description	New Entry
13950-1	Hep A IgM Ser Ql EIA	<input type="text" value="HepIgm"/>	<input type="text" value="Hepatitis A IgM EIA"/>	<input type="button" value="Add"/>
22314-9	Hep A IgM Ser Ql	<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>

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Condition : Hepatitis A

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Condition LOINC List

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LOINC Code	LOINC Description	Local Code	Local Description	New Entry
13950-1	Hep A IgM Ser Ql EIA	HepIgm	Hepatitis A IgM EIA	Add
		<input type="text"/>	<input type="text"/>	
22314-9	Hep A IgM Ser Ql	<input type="text"/>	<input type="text"/>	Add

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Condition : Hepatitis A

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LOINC Code	LOINC Description	Local Code	Local Description	New Entry
13950-1	Hep A IgM Ser Ql EIA	<input type="text" value="HepIgm"/>	<input type="text" value="Hepatitis A IgM EIA"/>	<input type="button" value="Add"/>
		<input type="text" value="HepAIgM"/>	<input type="text" value="Hepatitis A IgM EIA"/>	
22314-9	Hep A IgM Ser Ql	<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>

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Condition : Hepatitis A

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LOINC to SNOMED Mapping

List of **Systematized Nomenclature of Medicine (SNOMED)** Clinical Terms for results relevant to this condition. Terms are limited to those acceptable as results to LOINC codes previously mapped. Multiple local codes may be mapped to a single selected SNOMED Clinical Term where local codes are more specific than those of interest to MDPH Bureau of Communicable Disease Control. In this case, click the 'add' button to insert additional entry or entries for each SNOMED Clinical Term as needed. All results relevant to this condition that will be reported in OBX 5.5 must be represented here. Sensitivity results, reported in OBX 8, are mapped using the **Abnormal Flags** table under the **Vocabulary** tab.

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LOINC : Hep A IgM Ser Ql EIA

Local Codes for this LOINC: • HepAIgM • HepIgm

SNOMED Code	SNOMED Name	Local Code	Local Description	New Entry
10828004	Positive	<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>
42425007	Equivocal	<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>

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Condition : Hepatitis A

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LOINC to SNOMED Mapping

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LOINC : Hep A IgM Ser Ql EIA

Local Codes for this LOINC: • HepAIgM • HepIgm

SNOMED Code	SNOMED Name	Local Code	Local Description	New Entry
10828004	Positive	<input type="text" value="P"/>	<input type="text" value="Positive"/>	<input type="button" value="Add"/>
42425007	Equivocal	<input type="text" value="E"/>	<input type="text" value="Undetermined"/>	<input type="button" value="Add"/>

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Sensitivities

Sensitivity tests relevant to all conditions are mapped using the following combinations of Antibiotics and Methods. Only one Local Code may be mapped to each Antibiotic/Method combination and its associated LOINC code. All Antibiotic/Method combinations relevant to the pilot conditions, reported in OBX 3.4, must be represented here. Sensitivity results, reported in OBX 8, are mapped using the **Abnormal Flags** table under the **Vocabulary** tab.



Save

Antibiotic Name	Method	Local Code	Local Description
<input type="text"/>			
Select Antibiotic ▼	Select Method ▼	<input type="text"/>	<input type="text"/>

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Save

Antibiotic Name	Method	Local Code	Local Description
<input type="text" value="CIPROFLOXACIN"/>			
CIPROFLOXACIN	Select Method		

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Sensitivity tests relevant to all conditions are mapped using the following combinations of Antibiotics and Methods. Only one Local Code may be mapped to each Antibiotic/Method combination and its associated LOINC code. All Antibiotic/Method combinations relevant to the pilot conditions, reported in OBX 3.4, must be represented here. Sensitivity results, reported in OBX 8, are mapped using the **Abnormal Flags** table under the **Vocabulary** tab.



Save

Antibiotic Name	Method	Local Code	Local Description
CIPROFLOXACIN			
CIPROFLOXACIN	MIC	Cip	Cipro MIC

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Sensitivities

Sensitivity tests relevant to all conditions are mapped using the following combinations of Antibiotics and Methods. Only one Local Code may be mapped to each Antibiotic/Method combination and its associated LOINC code. All Antibiotic/Method combinations relevant to the pilot conditions, reported in OBX 3.4, must be represented here. Sensitivity results, reported in OBX 8, are mapped using the **Abnormal Flags** table under the **Vocabulary** tab.



Save

Antibiotic Name	Method	Local Code	Local Description
<input type="text"/>			
Select Antibiotic <input type="button" value="v"/>	Select Method <input type="button" value="v"/>	<input type="text"/>	<input type="text"/>

Antibiotic Name	Method	LOINC Code	Local Code	Local Description	Delete
AZITHROMYCIN+ETHAMBUTOL	MIC	16421-0	AE	AE MIC	<input type="checkbox"/>
CIPROFLOXACIN	MIC	185-9	Cip	Cipro MIC	<input type="checkbox"/>
ERYTHROMYCIN	GRADIENT STRIP	7009-4	EryGS	Erythromycin GS	<input type="checkbox"/>

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Vocabulary Table List

Coding tables for all general vocabularies are mapped using HL7 tables. Multiple local codes may be mapped to a single selected HL7 vocabulary code where local codes are more specific than those of interest to MDPH Bureau of Communicable Disease Control. In this case, click the **Add** button to insert additional entry or entries for each HL7 vocabulary code as needed. All results relevant to pilot conditions that will be reported in columns designated as data type **ID** must be represented here.

Table Name	Description
Abnormal Flags	Sensitivity Results - OBX 8
Death Indicator	Patient Death; Yes/No - PID 30
Ethnicity	Patient Ethnicity - PID 22
Hospitalization	Patient Hospitalization Flag - Simplified Message Format OBR
Pregnancy	Patient Pregnancy Indicator - Simplified Message Format PID
Race	Patient Race - PID 10
Relationship	Next of Kin Relationship to Patient - NK3
Report Status Code	Order Result Status - OBR 25
Result Status	Test Result Status - OBX 11
Sex	Patient Gender - PID 8
Source	Clinical Specimen Source - OBR 15
Treatment	Patient Treatment Indicator - Simplified Message Format OBR

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Vocabulary Table: Sex

Multiple local codes may be mapped to a single selected Health Level Seven (HL7) vocabulary code where local codes are more specific than those of interest to MDPH Bureau of Communicable Disease Control. In this case, click the **Add** button to insert additional entry or entries for each HL7 vocabulary code as needed. All results relevant to this table must be represented here.

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Value	Description	Local Code	Local Description	New Entry
F	Female	<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>
M	Male	<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>
H	Hermaphrodite, Undetermined	<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>
T	Transsexual	<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>
O	Other	<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>
U	Unknown	<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>

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Vocabulary Table: Sex

Multiple local codes may be mapped to a single selected Health Level Seven (HL7) vocabulary code where local codes are more specific than those of interest to MDPH Bureau of Communicable Disease Control. In this case, click the **Add** button to insert additional entry or entries for each HL7 vocabulary code as needed. All results relevant to this table must be represented here.

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Value	Description	Local Code	Local Description	New Entry
F	Female	<input type="text" value="F"/>	<input type="text" value="Female"/>	<input type="button" value="Add"/>
M	Male	<input type="text" value="M"/>	<input type="text" value="Male"/>	<input type="button" value="Add"/>
H	Hermaphrodite, Undetermined	<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>
T	Transsexual	<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>
O	Other	<input type="text" value="O"/>	<input type="text" value="All others"/>	<input type="button" value="Add"/>
U	Unknown	<input type="text"/>	<input type="text"/>	<input type="button" value="Add"/>

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Vocabulary Table: *Ethnicity*

Multiple local codes may be mapped to a single selected Health Level Seven (HL7) vocabulary code where local codes are more specific than those of interest to MDPH Bureau of Communicable Disease Control. In this case, click the **Add** button to insert additional entry or entries for each HL7 vocabulary code as needed. All results relevant to this table must be represented here.

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Value	Description	Local Code	Local Description	New Entry
H	Hispanic or Latino	<input type="text" value="2"/>	<input type="text"/>	<input type="button" value="Add"/>
NH	not Hispanic or Latino	<input type="text" value="3"/>	<input type="text"/>	<input type="button" value="Add"/>
U	Unknown	<input type="text" value="1"/>	<input type="text"/>	<input type="button" value="Add"/>

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Vocabulary Table: Source

Multiple local codes may be mapped to a single selected Health Level Seven (HL7) vocabulary code where local codes are more specific than those of interest to MDPH Bureau of Communicable Disease Control. In this case, click the **Add** button to insert additional entry or entries for each HL7 vocabulary code as needed. All results relevant to this table must be represented here.

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Value	Description	Local Code	Local Description	New Entry
ABS	Abscess	<input type="text" value="1"/>	<input type="text"/>	Add
AMN	fluid	<input type="text" value="2"/>	<input type="text"/>	Add
ASP	Aspirate	<input type="text" value="4"/>	<input type="text"/>	Add
BPH	Basophils	<input type="text"/>	<input type="text"/>	Add
BIFL	Bile fluid	<input type="text"/>	<input type="text"/>	Add
BLDA	Blood arterial	<input type="text"/>	<input type="text"/>	Add
BBL	Blood bag	<input type="text"/>	<input type="text"/>	Add
BLDC	Blood capillary	<input type="text"/>	<input type="text"/>	Add
BPU	Blood product unit	<input type="text"/>	<input type="text"/>	Add



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View Code Map

List of all your mapped codes grouped by [Condition](#) (LOINC and SNOMED), [Sensitivity](#), and [Vocabulary Tables](#).

Condition

Condition Name: *Gonorrhea*

LOINC Name : N gonorrhoea XXX QI Cult

Local Codes : • 2 - GC Culture

LOINC Code	SNOMED Code	SNOMED Name	Local Code	Local Description
698-1	10828004	Positive	POS	result

Condition Name: *Hepatitis A*

LOINC Name : Hep A IgM Ser QI EIA

Local Codes : • HepAIgM - Hepatitis A IgM EIA
• HepIgm - Hepatitis A IgM EIA

LOINC Code	SNOMED Code	SNOMED Name	Local Code	Local Description
13950-1	10828004	Positive	P	Positive
13950-1	42425007	Equivocal	E	Undetermined

Condition Name: *Miscellaneous*

LOINC Name : HOSPITAL ADMISSION

Local Codes : • 21971-7

Sensitivity

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Antibiotic Name	Method	LOINC Code	Local Code	Local Description
AZITHROMYCIN+ETHAMBUTOL	MIC	16421-0	AE	AE MIC
CIPROFLOXACIN	MIC	185-9	Cip	Cipro MIC
ERYTHROMYCIN	GRADIENT STRIP	7009-4	EryGS	Erythromycin GS

Vocabulary

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Vocabulary Table Name : Abnormal Flags

Value	Description	Local Code	Local Description
R	Resistant	R	resistant
S	Susceptible	S	sensitive

Vocabulary Table Name : Death Indicator

Value	Description	Local Code	Local Description
N	No	N	
Y	Yes	Y	

Vocabulary Table Name : Ethnicity

Value	Description	Local Code	Local Description
H	Hispanic or Latino	2	
NH	not Hispanic or Latino	3	
U	Unknown	1	

Vocabulary Table Name : Hospitalization

Value	Description	Local Code	Local Description
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Observational Report List



List of previously uploaded report files. Click on one to edit it or click **Upload New Report File** if you wish to start a new upload.

Upload New Report File

Report File Search

File Name	<input type="text"/>	?	Create Date Range (From)	<input type="text"/>		?
Batch Number	<input type="text"/>	?	Create Date Range (To)	<input type="text"/>		
Uploaded By	<input type="text"/>	?	Upload Status	<input type="text"/>		?

Search

Report File List

List of records that match the supplied search criteria, if any.

File Name	Batch Number	Uploaded By	File Size (Bytes)	Create Date	Upload Status
JD SMF Upload.txt		Ergas, Rosa	9720	2005-05-06 16:40:01.0	Completed
JD SMF Upload.txt		Ergas, Rosa	9106	2005-05-06 16:29:48.0	Completed
JD SMF Upload.txt		Ergas, Rosa	9056	2005-05-06 16:23:22.0	Completed
JD SMF Upload.txt		Ergas, Rosa	9083	2005-05-06 16:19:38.0	Completed
TESTNK14-20050330101302.XML	TESTNK14.XML-2	Krygowski, Jim	18760	2005-03-30 10:14:52.0	Completed
TESTNK14-20050330095818.XML	TESTNK14.XML	Krygowski, Jim	18760	2005-03-30 10:01:46.0	Completed
TESTNK14-20050325074903.XML	XMLTEST022	Krygowski, Jim	18283	2005-03-25 08:26:28.0	Completed
TESTNK14-20050325073335.XML	XMLTEST022	Krygowski, Jim	12467	2005-03-25 07:41:44.0	Completed
TESTNK14-20050325073335.XML	XMLTEST021	Krygowski, Jim	12575	2005-03-25 07:35:27.0	Completed
TESTNK14-20050324051530.XML	XMLTEST021	Krygowski, Jim	18760	2005-03-24 17:14:51.0	Completed
TESTNK14-20050324051354.XML	XMLTEST020	Krygowski, Jim	18760	2005-03-24 17:13:10.0	Completed
TESTNK14-20050324045806.XML	XMLTEST019	Krygowski, Jim	18760	2005-03-24 17:04:00.0	Completed
TESTNK14-20050324080047.XML	XML Test 20	Ergas, Rosa	12687	2005-03-24 11:46:41.0	Completed



Observational Reports

[? Help](#)

Upload New Report File

You can upload a file located on your computer. Enter optional Batch Number and Comments then click **Upload Report File**.

 [Upload Report File](#) | [Back to Report List](#)

Batch Number



File Name

[Browse...](#)



Comments




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Observational Report List



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Upload New Report File

Report File Search

File Name	<input type="text"/>	?	Create Date Range (From)	<input type="text"/>		?
Batch Number	<input type="text"/>	?	Create Date Range (To)	<input type="text"/>		
Uploaded By	<input type="text"/>	?	Upload Status	<input type="text"/>		?

Search

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Observational Reports

[? Help](#)

Report File Upload Details

Detailed upload information about the selected report file. Click on **View File Contents** to view the report data contained in the file, and **View File Processing Details** to view processing errors and warnings.

 [View File Contents](#) |  [View File Processing Details](#) |  [Back to Report File List](#)

File Name: TESTNK14-20050323073807.SIMPLE
Batch Number: XMLTEST014
File Size: 590 Bytes
Create Date: 2005-03-23 12:08:54.0
Rejected Messages: 0
Accepted Messages: 1
Total Messages: 1
Upload Status: Completed
Uploaded By: Krygowski, Jim
Comments: 1.2.4a

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BHS|State Laboratory Institute|22D0650270|20050323|2005032322D0650270
PID|MED01|FAC001|MED02|FAC002|001-12-3456|Doe|John|Q|JR|19700101000000|1|7|234 First
Street|Apartment 1|Boston|MA|02111|USA|617|5551234|567|English|1|20050101000000|Y|Epidemiologist|0
NK1|Doe|Jane|ORC|FacilityName|234 First Street|Suite 1|Boston|MA|02111|USA|617|5551234|567|123
Second Street|3rd Floor|Boston|MA|02111|USA
OBR|ORD1234|ACC1234|2|20041127000000|20041127000000|1|20041201000000|Y|Antibiotics|A|200411290000
OBX|2|POS|S|0|20041130000000|FAC001



Observational Reports

[? Help](#)

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 [View File Contents](#) |  [View File Processing Details](#) |  [Back to Report File List](#)

File Name: TESTNK14-20050323073807.SIMPLE
Batch Number: XMLTEST014
File Size: 590 Bytes
Create Date: 2005-03-23 12:08:54.0
Rejected Messages: 0
Accepted Messages: 1
Total Messages: 1
Upload Status: Completed
Uploaded By: Krygowski, Jim
Comments: 1.2.4a

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End Time: 2005-02-22 12:00:55.150

```
<OBX.1>1</OBX.1>
<OBX.2>CE</OBX.2>
<OBX.3>
<CE.4>11449-6</CE.4>
<CE.5>PREGNANCY STATUS</CE.5>
<CE.6>LN</CE.6>
</OBX.3>
<OBX.5>
<CE.4>0</CE.4>
<CE.6>L</CE.6>
</OBX.5>
<OBX.11>0</OBX.11>
<OBX.14>
<TS.1>20041127000000</TS.1>
</OBX.14>
</OBX>
```

<OBX>

```
<OBX.1>2</OBX.1>
<OBX.2>ST</OBX.2>
<OBX.3>
<CE.4>11294-6</CE.4>
<CE.5>CURRENT EMPLOYMENT</CE.5>
<CE.6>LN</CE.6>
</OBX.3>
<OBX.5>Epidemiologist</OBX.5>
<OBX.11>0</OBX.11>
<OBX.14>
<TS.1>20041127000000</TS.1>
</OBX.14>
</OBX>
```

Error: 'CE.4' value (11294-6) is invalid 'LOINC'. Message rejected.

Error: 'OBX.3' value is invalid 'CE_LN'. Message rejected.

Processing Results: 0 Messages Accepted, 1 Messages Rejected.

End Time: 2005-03-25 08:26:29.044





Report Files with Upload Errors

List of report files with upload errors not yet **Marked as Viewed**, Last 7 days only.






File Name	Batch Number	File Size (Bytes)	Upload Date
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Page 1 of 1

Contact Information

 617-983-6801
 ELR.cdsupport@state.ma.us

Targeted Links

-  [MDPH Simplified Message Specification version 1.1](#)
-  [PHIN 2.3.1 Laboratory Reporting Specification Guide](#)
-  [Massachusetts General Laws, Chapter 111D, Clinical Laboratories](#)
-  [Massachusetts Guide to Surveillance and Reporting, January 2001](#)
-  [List of Diseases Reportable by Laboratories \(789k\)](#)

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Where are we now?

- 7-Feb-2005
 - Send MDPH Contact information for all individuals involved in the hospital's piece of the ELR Pilot project
- 21-Mar-2005
 - Complete mappings between local coding systems and MDPH standard code systems
 - Complete message creation software functionality and begin testing against MDPH provided test environment
- 4-Apr-2005
 - Complete message creation software testing and bug fixing activities
 - Deploy message creation software and start transmission of production data to MDPH
- 4-Apr-2005 to 30-Jun-2005
 - Daily production and upload of messages describing the eight reportable conditions
- 30-Jun-2005
 - Hospitals provide feedback to MDPH on pilot experiences including cost effectiveness data

Next Steps

- User Interface Changes
 - Single LOINCS across multiple conditions
- Expansion to all reportable conditions
 - In conjunction with CDC, define appropriate LOINC and SNOMED codes for all reportable conditions
 - Complete tables in mapping interface (no additional coding required)
- Automate File Upload
 - Web services or sFTP
 - Error report generation
- Expand to include more clinical information
 - TB Clinical Data exchange with Boston Public Health Commission
 - Syndromic Surveillance data (ED Chief Complaints)
- Link to BCDC web-based surveillance system
- Parse data to appropriate external partners (local boards of health; syndromic surveillance partners)

BCDC

ISIS

Local Boards of Health

Possible data stream

MDPH

DMZ

Shared Data Repository

Unified Message Processing

Flat-File

HL7 2.3.1

Web Portal

sFTP

Web Services

File Upload
over HTTPS
Flat-File or HL7

File Upload
over sFTP
Flat-File or HL7

Message Transmission
over WS/HTTPS
HL7

Reporting
Institutions

Web Browser

Data Extraction and Message
Creation Process

LIS

HIS

sFTP

Data Extraction and Message
Creation Process

LIS

HIS

Web Services Client

Data Extraction and Message
Creation Process

LIS

HIS

Questions

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